UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF MISSION SUPPORT

Capital Planning Document

Roles and Responsibilities of the Integrated Project Team (CFO and SRPO):

EPA's CFO oversees the agency's budget planning process, which includes the OMB Submission, the President's Budget Submission and the development of the Enacted Operating Plan. However, the actual budget planning falls to EPA's Office of Mission Support (OMS), which oversees operational responsibilities for facilities, human resources, acquisition, grants and information technology, among other functions. OMS's senior leadership, including the agency's Senior Procurement Executive and Chief Information Officer and their staff, work closely with the Office of the Chief Financial Officer to manage resources associated with the real property portfolio.

Agency Strategic Plan:

In EPA's current strategic plan, the agency has a long-term performance goal (LTPG) dedicated to tracking planned space releases from FY 2018 through FY 2022. Elevating space to an LTPG ensures that the targets and the underlying projects get the highest level of visibility from EPA's senior leadership and the agency's appropriators.

Annual Budget Process for Real Property:

EPA formulates space and capital planning at the project level in all planning budgets. EPA documents projects in the program project narratives of the agency's OMB Submission and President's Budget Submission. Once appropriated and the agency receives its actual operating budget, EPA sets resource levels by space project in its internal budget planning system and tracks the status of commitments and unliquidated obligations to ensure taxpayer resources are used judiciously. EPA conducts an end of year reconciliation process to ensure that all needed funding was used and if available funds remain, resources are de-obligated and set aside for a project the following fiscal year.

Major Lines of Business:

The Environmental Protection Agency has two principle lines of business – science and administration. The Agency's science mission includes research on environmental issues, testing and analysis in support of enforcement of environmental laws and regulations, and response to environmental emergencies. These missions all require a network of laboratories in which to conduct research and analysis of issues in land, water, air, and human health. The administrative mission includes analysis and development of regulations, enforcement of environmental laws and regulations, administration of the superfund program, and general administration. These functions

are housed in office space located around the country, and in a headquarters complex in Washington, DC.

All these real property assets are regularly assessed for utilization and capacity. The laboratories are evaluated through a master planning process which updates each facility master plan approximately every five years. In addition, a major agency wide study was performed in 2015 which evaluated the capacity, condition and deferred maintenance costs of all of EPA's laboratories to develop a detailed alternatives analysis to determine the most cost-effective configuration of the laboratory network. The office spaces are assessed for utilization on an on-going basis to identify where any excess space might exist, and where it is feasible to release space. Uniform office space guidelines were updated in 2016 to reflect new technologies, and to reduce space. These standards are now applied to all new and renovated office space.

Mission Requirements for Real Property:

In addition to office space for EPA administrative and analysis staff, warehouse space for records and equipment storage, EPA occupies laboratories with three distinct and complementary missions:

- **Regional Laboratories –** Regional laboratories have primary responsibility for providing scientific data in support of decisions by the EPA Regional Office's environmental programs, for addressing the comprehensive needs of the Regions, and for informing immediate and near-term decisions on environmental conditions, emergency response, compliance, and enforcement.

- **National Program Laboratories** – National Program Laboratories have primary responsibility for supporting legislative mandates to develop and provide specific programs that support decisions for regulations, compliance, and enforcement at a national level.

- **Research and Development Laboratories** – Research and Development Laboratories have primary responsibility for developing knowledge, assessments, and scientific tools that underpin decisions about EPA's protective standards, risk assessments, and risk management decisions.

Conduct Prioritized Needs Assessment:

Since 1974, EPA has conducted strategic master plans of all its laboratory facilities to determine condition assessments, infrastructure improvement needs, and fulfillment of mission requirements. These master plans have been updated approximately every 5 years to continually reflect changing mission requirements and implementation of improvement projects. The Master Plans have identified specific gaps in mission and infrastructure for each location. These gaps are quantified in detailed project descriptions and cost estimates covering needs projected over the next 20 years. The list of projects agency-wide is further narrowed down to projects needed in the next 5 years, and these are prioritized to create a 5-year budget.

In addition, the Nationwide laboratory study from 2012 through 2015 evaluated five scenarios for reducing the laboratory portfolio costs, using five metrics – space utilization, facility condition index (FCI), sustainability, science, and costs. Based on evaluation of the life cycle costs for each scenario, the study made specific recommendations which will reduce the agency's laboratory footprint from 34 facilities to 26.

Perform Alternatives Analysis:

During the laboratory study, for each of the seven scenarios considered, 30-year life cycle costs were calculated, including renovation costs, operation and maintenance costs, relocation and laboratory decommissioning, and the capital cost of increasing the FCI of each facility to the targeted values. The 30-year life cycle cost of each site was calculated based on net present value. The net present value (or present worth) calculations convert the monies spent at various times over the 30-year life cycle to an equivalent cost as of present day, to create a basis for comparison. The total value of each scenario (A through E) was calculated as the summation of all costs for each location including inflation and projected economic growth. It is important to keep in mind that these scenarios are hypothetical and were modeled to determine what scenario minimizes the operational costs of the EPA laboratory portfolio over a 30-year life cycle. Additionally, a cash flow analysis was conducted on each scenario to estimate the payback period – the length of time theoretically required to recover the modeled investments necessary for facility renovations and replacement from resulting cumulative savings and avoided costs.

Resource Prioritization Process for Real Property:

The agency uses a master planning process which creates a prioritized list of projects for each owned facility based on evaluation by a team of architects and engineers and consultation with local staff and program /regional management. These site-specific projects are then entered into a process which ranks the projects according to a series of criteria including health and safety, mission requirements, energy reduction, infrastructure, security and environmental compliance. The resulting 5-year planning list is then merged with real estate priorities to develop a 5 year budget plan.

Targeted Funding Gap Analysis:

Congressional appropriation levels limit the amount of work that EPA can accomplish every fiscal year. The agency remains committed to multi-year budgeting for all space projects so OMS senior leaders can determine how best to manage funds, carryover resources and scale projects in line with anticipated appropriation levels.

- **Portfolio Life Cycle Cost -** The Laboratory Study utilized cost modeling guidance from Office of Management and Budget (OMB) Circular A-94 to conduct life cycle benefit-cost analyses. Cost data collected and validated by the Cost Subcommittee created an annual operational cost baseline using FY 2012 data. Based on an evaluation of seven scenarios for consolidation of laboratories and improvements to bring all to an FCI of 82, the life cycle cost estimate for capital budgeting is $400 million.

Performance Goals and Metrics:

- **Space Density and Utilization** - Space density is used as a measure of space utilization, represented as usable square foot (USF) per laboratory occupant. Occupant data includes all federal employees, contract workers, and grantees using space for laboratory functions. The usable square foot in each facility is consistently defined and calculated using classifications of

laboratory, laboratory office, laboratory support, and special laboratory space. Non-laboratory related space is not included in the density calculation. The inventory data added up to more than 3.75 million gross square feet (GSF) of laboratory facilities and 2.75 million of usable square feet (USF), as defined by the Building Operations and Maintenance Organization (BOMA) standards.[10]

- **Facility Condition Index (FCI) -** The Facility Condition Index is an industry standard asset management tool that measures the "constructed asset's" condition at a specific point in time. The facility condition for the study is assessed based on the General Services Administration (GSA) Guidance for Real Property Inventory reporting and the National Aeronautics and Space Administration (NASA) Deferred Maintenance Model, modified to include a scalar rating for architectural, mechanical, electrical, and plumbing systems, and a parametric estimating method to calculate renovation cost relative to replacement cost. The Facility Condition Index, based on a scale of 1-100, assesses facility infrastructure and provides a consistent rating system for agency-wide value comparison among facilities. The area-weighted average Facility Condition Index of EPA's laboratory portfolio was determined to be 64.4 at the time of the laboratory study.

- **Sustainability** - Sustainability metrics include space, energy, greenhouse gas emissions, and water reductions. Energy and water factors are included in the development of the FCI. The agency projects energy, water, GHG, and water reductions to continue to meet or exceed the current and future projected Federal requirements.

- **Costs** - Cost data are collected and organized into cost categories (e.g., information technology and telecommunications infrastructure, facility operations and maintenance, lease costs, costs of safety and health, security, and transportation).

Appendix

List of Construction Projects: EPA included the following projects in the agency's FY 2022 budget request:

- Co-locating the regional laboratory in Houston, Texas with the EPA-owned laboratory in Ada, Oklahoma
- Co-locating operations for the Region 9 laboratory in Richmond, California with the EPA-owned laboratory in Corvallis, Oregon
- Optimizing space at the Athens, Georgia laboratory

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